

PTO/SB/08A (08-03)  
Approved for use through 07/31/2003. OMB 0851-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>Substitute for form 1449A/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete If Known</b>		
			Application Number	10/622,874	
			Filing Date	7/18/2003	
			First Named Inventor	Minano et al.	
			Art Unit	2875	
Examiner Name					
Sheet	1	of	2	Attorney Docket Number	3084.007

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (If known)			
[Signature]		<del>US appl. no. 10/289,479</del>	<del>10-11-2000</del>	<del>Demitz</del>	
		<del>US appl. no. 10/461,557</del>	<del>08-12-2003</del>	<del>Minano</del>	
		<del>US appl. no. 10/709,193</del>	<del>12-01-2003</del>	<del>Surf</del>	
		<del>US appl. no. 10/778,000</del>	<del>08-08-2004</del>	<del>Minano, et al</del>	
		<del>US appl. no. 10/778,050</del>	<del>02-12-2004</del>	<del>Demitz</del>	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>3</sup>
		Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (If known)				
[Signature]		<del>SU 1200051 A1</del>	<del>01-07-1987</del>	<del>Spigalis</del>		
		EP 0450560 A2	10-09-1991	Totah, et al		
		WO 99/09349	02-25-1999	De Coma International Inc.		
		WO 99/13266	03-18-1999	Simon		
		WO 01/07828	02-01-2001	Peika		
		WO 03/066374 A2	08-14-2003	Steen, et al		
		WO 03/066374 A3	08-14-2003	Steen		
		WO 04/007241 A2	01-22-2004	Steen, et al		

Examiner Signature	<i>E. Ceo</i>	Date Considered	05/17/04
-----------------------	---------------	--------------------	----------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449B/PTO			<b>Complete if Kn wn</b>		
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			Application Number	10/622,874	
			Filing Date	7/18/2003	
			First Named Inventor	Minano et al.	
			Art Unit	2875	
			Examiner Name		
Sheet	2	of	2	Attorney Docket Number	3084.007

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>	
ee		Remillard, Everson and Weber, "Loss Mechanisms Optical Light Pipes" <i>Applied Optics</i> Vol 31 #34 pp. 7232-7241 December 1992.		
		Parkyn et al "The Black Hole™: Cusped waveguide-injectors and illuminators for LEDs; Part of the SPIE Conference on Nonimaging Optics: Maximum Efficiency Light Transfer V, Denver, CO, July 1999.		
		Hyper ARGUS®LED, Hyper-Bright, 3mm (T1) LED, Non Diffused; 3-1-2000; Infineon Technologies, pp. 1-9.		
		Spigulis, "Compact dielectric reflective elements, Half-sphere concentrators of radially emitted light" <i>Applied Optics</i> Vol. 33, No. 25, September 1994.		

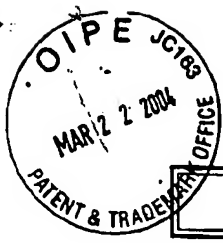
Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). \*Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.





If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.





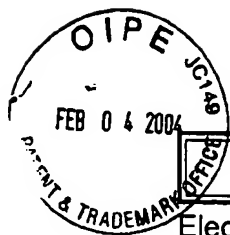
## ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18

Stylesheet Version v18.0

Title of Invention	ASYMMETRIC TIR LENSES PRODUCING OFF-AXIS BEAMS																																																																																																																																						
<p>Application Number: 10/622874 </p> <p>Confirmation Number: 2758</p> <p>First Named Applicant: Juan Minano</p> <p>Attorney Docket Number: 3084.007</p> <p>Art Unit: 2875</p> <p>Search string: ( 4675725 or 4920404 or 5577492 or 5613769 or 5655832 or 5924788 or 5926320 or 5966250 or 6273596 or 6560038 or 6578989 or 6603243 or 6616287 or 6637924 or 6639733 or 6646813 ),pn.</p> <p>US Patent Documents</p> <p>Note: Applicant is not required to submit a paper copy of cited US Patent Documents</p> <table border="1"><thead><tr><th>init</th><th>Cite.No.</th><th>Patent No.</th><th>Date</th><th>Patentee</th><th>Kind</th><th>Class</th><th>Subclass</th></tr></thead><tbody><tr><td></td><td>1</td><td>4675725</td><td>1987-06-23</td><td>Parkyn</td><td></td><td></td><td></td></tr><tr><td></td><td>2</td><td>4920404</td><td>1990-04-24</td><td>Shrimall et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>3</td><td>5577492</td><td>1996-11-26</td><td>Parkyn et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>4</td><td>5613769</td><td>1997-03-25</td><td>Parkyn et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>5</td><td>5655832</td><td>1997-08-12</td><td>Pelka et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>6</td><td>5924788</td><td>1999-07-20</td><td>Parkyn</td><td></td><td></td><td></td></tr><tr><td></td><td>7</td><td>5926320</td><td>1999-07-20</td><td>Parkyn et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>8</td><td>5966250</td><td>1999-10-12</td><td>Shimizu</td><td></td><td></td><td></td></tr><tr><td></td><td>9</td><td>6273596</td><td>2001-08-14</td><td>Parkyn</td><td></td><td></td><td></td></tr><tr><td></td><td>10</td><td>6560038</td><td>2003-05-06</td><td>Parkyn et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>11</td><td>6578989</td><td>2003-06-17</td><td>Osumi et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>12</td><td>6603243</td><td>2003-08-05</td><td>Parkyn et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>13</td><td>6616287</td><td>2003-09-09</td><td>Sekita et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>14</td><td>6637924</td><td>2003-10-28</td><td>Pelka et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>15</td><td>6639733</td><td>2003-10-28</td><td>Minano et al.</td><td></td><td></td><td></td></tr></tbody></table>								init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass		1	4675725	1987-06-23	Parkyn					2	4920404	1990-04-24	Shrimall et al.					3	5577492	1996-11-26	Parkyn et al.					4	5613769	1997-03-25	Parkyn et al.					5	5655832	1997-08-12	Pelka et al.					6	5924788	1999-07-20	Parkyn					7	5926320	1999-07-20	Parkyn et al.					8	5966250	1999-10-12	Shimizu					9	6273596	2001-08-14	Parkyn					10	6560038	2003-05-06	Parkyn et al.					11	6578989	2003-06-17	Osumi et al.					12	6603243	2003-08-05	Parkyn et al.					13	6616287	2003-09-09	Sekita et al.					14	6637924	2003-10-28	Pelka et al.					15	6639733	2003-10-28	Minano et al.			
init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass																																																																																																																																
	1	4675725	1987-06-23	Parkyn																																																																																																																																			
	2	4920404	1990-04-24	Shrimall et al.																																																																																																																																			
	3	5577492	1996-11-26	Parkyn et al.																																																																																																																																			
	4	5613769	1997-03-25	Parkyn et al.																																																																																																																																			
	5	5655832	1997-08-12	Pelka et al.																																																																																																																																			
	6	5924788	1999-07-20	Parkyn																																																																																																																																			
	7	5926320	1999-07-20	Parkyn et al.																																																																																																																																			
	8	5966250	1999-10-12	Shimizu																																																																																																																																			
	9	6273596	2001-08-14	Parkyn																																																																																																																																			
	10	6560038	2003-05-06	Parkyn et al.																																																																																																																																			
	11	6578989	2003-06-17	Osumi et al.																																																																																																																																			
	12	6603243	2003-08-05	Parkyn et al.																																																																																																																																			
	13	6616287	2003-09-09	Sekita et al.																																																																																																																																			
	14	6637924	2003-10-28	Pelka et al.																																																																																																																																			
	15	6639733	2003-10-28	Minano et al.																																																																																																																																			

	16	6646813	2003-11-11	Falicoff
Signature				
Examiner Name			Date	
			05/17/04	



## ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18  
Stylesheet Version v18.0

Title of Invention	ASYMMETRIC TIR LENSES PRODUCING OFF-AXIS BEAMS																																																																																																													
<p>Application Number: 10/622874</p> <p>Confirmation Number: 2758</p> <p>First Named Applicant: Juan Minano</p> <p>Attorney Docket Number: 3084.007</p> <p>Art Unit: 2875</p> <p>Search string: ( 1977689 or 22549691 or 4192994 or 4342908 or 4698730 or 5140220 or 5302778 or 5335157 or 5404282 or 5452190 or 5608290 or 5757557 or 5777433 or 5806955 or 5813743 or 5894195 or 5894196 or 5897201 or 5898267 or 6030099 or 6044196 or 6048083 or 6166860 or 6177761 or 6181476 or 6450661 or 6473554 or 6536923 or 6547423 or 6582103 or 6598998 or 6607286 or 6647199 or 6674096 or 20020080623 or 20030076034 ).pn. .</p> <p>US Patent Documents</p> <p>Note: Applicant is not required to submit a paper copy of cited US Patent Documents</p> <table border="1"><thead><tr><th>init</th><th>Cite.No.</th><th>Patent No.</th><th>Date</th><th>Patentee</th><th>Kind</th><th>Class</th><th>Subclass</th></tr></thead><tbody><tr><td><input checked="" type="checkbox"/></td><td>1</td><td>1977689</td><td>1934-10-23</td><td>Muller</td><td></td><td></td><td></td></tr><tr><td><input checked="" type="checkbox"/></td><td><del>2</del></td><td><del>32540091</del></td><td><del>1941-03-02</del></td><td><del>Harris</del></td><td></td><td></td><td></td></tr><tr><td><input checked="" type="checkbox"/></td><td>3</td><td>4192994</td><td>1980-03-11</td><td>Kastner</td><td></td><td></td><td></td></tr><tr><td><input checked="" type="checkbox"/></td><td>4</td><td>4342908</td><td>1982-08-03</td><td>Henningesen et al</td><td></td><td></td><td></td></tr><tr><td><input checked="" type="checkbox"/></td><td>5</td><td>4698730</td><td>1987-10-06</td><td>Sakai et al</td><td></td><td></td><td></td></tr><tr><td><input checked="" type="checkbox"/></td><td>6</td><td>5140220</td><td>1992-08-18</td><td>Hasegawa</td><td></td><td></td><td></td></tr><tr><td><input checked="" type="checkbox"/></td><td>7</td><td>5302778</td><td>1994-04-12</td><td>Maurinus</td><td></td><td></td><td></td></tr><tr><td><input checked="" type="checkbox"/></td><td>8</td><td>5335157</td><td>1994-08-02</td><td>Lyons</td><td></td><td></td><td></td></tr><tr><td><input checked="" type="checkbox"/></td><td>9</td><td>5404282</td><td>1995-04-04</td><td>Klinke et al</td><td></td><td></td><td></td></tr><tr><td><input checked="" type="checkbox"/></td><td>10</td><td>5452190</td><td>1995-09-19</td><td>Priesemuth</td><td></td><td></td><td></td></tr><tr><td><input checked="" type="checkbox"/></td><td>11</td><td>5608290</td><td>1997-03-04</td><td>Hutchisson et al</td><td></td><td></td><td></td></tr><tr><td><input checked="" type="checkbox"/></td><td>12</td><td>5757557</td><td>1998-05-26</td><td>Medvedev</td><td></td><td></td><td></td></tr></tbody></table>							init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass	<input checked="" type="checkbox"/>	1	1977689	1934-10-23	Muller				<input checked="" type="checkbox"/>	<del>2</del>	<del>32540091</del>	<del>1941-03-02</del>	<del>Harris</del>				<input checked="" type="checkbox"/>	3	4192994	1980-03-11	Kastner				<input checked="" type="checkbox"/>	4	4342908	1982-08-03	Henningesen et al				<input checked="" type="checkbox"/>	5	4698730	1987-10-06	Sakai et al				<input checked="" type="checkbox"/>	6	5140220	1992-08-18	Hasegawa				<input checked="" type="checkbox"/>	7	5302778	1994-04-12	Maurinus				<input checked="" type="checkbox"/>	8	5335157	1994-08-02	Lyons				<input checked="" type="checkbox"/>	9	5404282	1995-04-04	Klinke et al				<input checked="" type="checkbox"/>	10	5452190	1995-09-19	Priesemuth				<input checked="" type="checkbox"/>	11	5608290	1997-03-04	Hutchisson et al				<input checked="" type="checkbox"/>	12	5757557	1998-05-26	Medvedev			
init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass																																																																																																							
<input checked="" type="checkbox"/>	1	1977689	1934-10-23	Muller																																																																																																										
<input checked="" type="checkbox"/>	<del>2</del>	<del>32540091</del>	<del>1941-03-02</del>	<del>Harris</del>																																																																																																										
<input checked="" type="checkbox"/>	3	4192994	1980-03-11	Kastner																																																																																																										
<input checked="" type="checkbox"/>	4	4342908	1982-08-03	Henningesen et al																																																																																																										
<input checked="" type="checkbox"/>	5	4698730	1987-10-06	Sakai et al																																																																																																										
<input checked="" type="checkbox"/>	6	5140220	1992-08-18	Hasegawa																																																																																																										
<input checked="" type="checkbox"/>	7	5302778	1994-04-12	Maurinus																																																																																																										
<input checked="" type="checkbox"/>	8	5335157	1994-08-02	Lyons																																																																																																										
<input checked="" type="checkbox"/>	9	5404282	1995-04-04	Klinke et al																																																																																																										
<input checked="" type="checkbox"/>	10	5452190	1995-09-19	Priesemuth																																																																																																										
<input checked="" type="checkbox"/>	11	5608290	1997-03-04	Hutchisson et al																																																																																																										
<input checked="" type="checkbox"/>	12	5757557	1998-05-26	Medvedev																																																																																																										


<input checked="" type="checkbox"/>	13	5777433	1998-07-07	Lester et al
<input checked="" type="checkbox"/>	14	5806955	1998-09-15	Parkyn Jr. et al
<input checked="" type="checkbox"/>	15	5813743	1998-09-29	Naka
<input checked="" type="checkbox"/>	16	5894195	1999-04-13	McDermott
<input checked="" type="checkbox"/>	17	5894196	1999-04-13	McDermott
<input checked="" type="checkbox"/>	18	5897201	1999-04-27	Simon
<input checked="" type="checkbox"/>	19	5898267	1999-04-27	McDermott
<input checked="" type="checkbox"/>	20	6030099	2000-02-29	McDermott
<input checked="" type="checkbox"/>	21	6044196	2000-03-28	Winston et al
<input checked="" type="checkbox"/>	22	6048083	2000-04-11	McDermott
<input checked="" type="checkbox"/>	23	6166860	2000-12-26	Medvedev et al
<input checked="" type="checkbox"/>	24	6177761	2001-01-23	Pelka
<input checked="" type="checkbox"/>	25	6181476	2001-01-30	Medvedev
<input checked="" type="checkbox"/>	26	6450661	2002-09-17	Okumura
<input checked="" type="checkbox"/>	27	6473554	2002-10-29	Pelka et al
<input checked="" type="checkbox"/>	28	6536923	2003-03-25	Merz
<input checked="" type="checkbox"/>	29	6547423	2003-04-15	Marshall et al
<input checked="" type="checkbox"/>	30	6582103	2003-06-24	Popovich et al
<input checked="" type="checkbox"/>	31	6598998	2003-07-29	West et al
<input checked="" type="checkbox"/>	32	6607286	2003-08-19	West et al
<input checked="" type="checkbox"/>	33	6647199	2003-11-11	Pelka et al
<input checked="" type="checkbox"/>	34	6674096	2004-01-06	Sommers

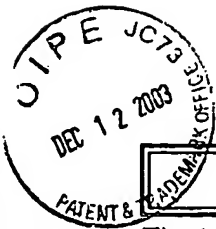
## US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
<input checked="" type="checkbox"/>	1	20020080623	2002-06-27	Pashley			
<input checked="" type="checkbox"/>	2	20030076034	2003-04-24	Marshall			

Signature

Examiner Name	Date
	05/17/04



## ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18

Stylesheet Version v18.0

<b>Title of Invention</b>	<b>ASYMMETRIC TIR LENSES PRODUCING OFF-AXIS BEAMS</b>																																				
<p>Application Number: 10/622874 Confirmation Number: 2758 First Named Applicant: Juan Minano Attorney Docket Number: 3084.007 Art Unit: 2875 Search string: ( 4337759 or 5404869 or 5676453 ).pn.</p> <p><b>US Patent Documents</b></p> <p>Note: Applicant is not required to submit a paper copy of cited US Patent Documents</p> <table border="1"><thead><tr><th>init</th><th>Cite.No.</th><th>Patent No.</th><th>Date</th><th>Patentee</th><th>Kind</th><th>Class</th><th>Subclass</th></tr></thead><tbody><tr><td><input checked="" type="checkbox"/></td><td>1</td><td>4337759</td><td>1982-02-27</td><td>Popovich et al.</td><td></td><td></td><td></td></tr><tr><td><input type="checkbox"/></td><td>2</td><td>5404869</td><td>1995-04-11</td><td>Parkyn Jr. et al.</td><td></td><td></td><td></td></tr><tr><td><input type="checkbox"/></td><td>3</td><td>5676453</td><td>1997-10-14</td><td>Parkyn Jr. et al</td><td></td><td></td><td></td></tr></tbody></table> <p><b>Signature</b></p> <table border="1"><thead><tr><th>Examiner Name</th><th>Date</th></tr></thead><tbody><tr><td></td><td>05/17/04</td></tr></tbody></table>		init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass	<input checked="" type="checkbox"/>	1	4337759	1982-02-27	Popovich et al.				<input type="checkbox"/>	2	5404869	1995-04-11	Parkyn Jr. et al.				<input type="checkbox"/>	3	5676453	1997-10-14	Parkyn Jr. et al				Examiner Name	Date		05/17/04
init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass																														
<input checked="" type="checkbox"/>	1	4337759	1982-02-27	Popovich et al.																																	
<input type="checkbox"/>	2	5404869	1995-04-11	Parkyn Jr. et al.																																	
<input type="checkbox"/>	3	5676453	1997-10-14	Parkyn Jr. et al																																	
Examiner Name	Date																																				
	05/17/04																																				